

(19)



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(11)

EP 0 967 163 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
12.07.2000 Bulletin 2000/28

(51) Int. Cl.⁷: **B65G 47/08**, B65G 17/32,
B65G 17/42, B65B 5/06

(43) Date of publication A2:
29.12.1999 Bulletin 1999/52

(21) Application number: 99304791.9

(22) Date of filing: 18.06.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 25.06.1998 JP 17913298
27.07.1998 JP 21122798
20.11.1998 JP 33125698

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(54) Conveyor with a plurality of flights and boxing system using such conveyor

(57) A conveyor (58) includes first (5-1,5-2) and second (5'-1,5'-2) groups of flights which are spaced along the conveying direction to provide spaces sufficient to hold packs (1) therein. The flights in each group are divided into first (5-1,5'-1) and second (5-2,5'-2) sets. The first and second groups of flights are mounted to first (18a,18b) and second (21a,21b) conveyor chain pairs, respectively, and moved through pack loading

(43) and unloading (19) stations. Stepping motors (8a,8b) drive the first and second chain pairs independently. A controller (27) causes a set of flights after being loaded or unloaded to be forwarded to the unloading or loading station at a speed higher than the speed at which the sets move through the loading station.

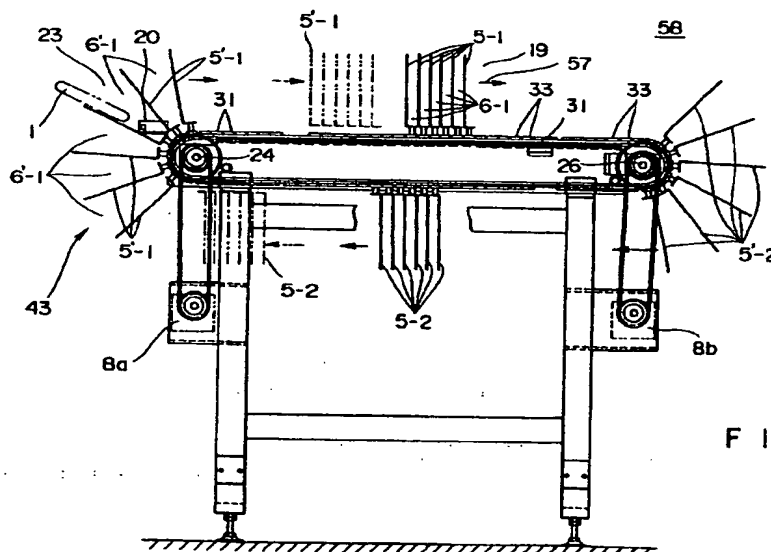


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 4791

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-/-			
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 March 2000	Examiner Smolders, R
CATEGORY OF CITED DOCUMENTS		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: member of the same patent family, corresponding document	
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			

EPO FORM 103 (03.02.2000)



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EUROPEAN SEARCH REPORT

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<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1800 (04/99) (prev. 01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-6:

Conveyor comprising first and second groups of flights mounted on respectively first and second conveying means, drive means and control means.

2. Claims: 7,11-14:

Conveyor comprising a plurality of detachable flights.

3. Claims: 8-10:

Boxing system comprising holding members (or means) for holding a predetermined number of aligned articles to be put in a box.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 30 4791

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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23-03-2000

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82